

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS PATENT
OF THE UNITED STATES IS:

1. An image removing method comprising:

bringing an outermost layer of an image removing member
5 into contact with an image fixed on an image support without
applying a liquid to the image, while heating the image and the
image removing member; and

separating the removing member from the image support to
remove the image from the image support,

10 wherein the removing member comprises a substrate and the
outermost layer which is located overlying the substrate and
which comprises a thermoplastic resin, and

wherein the image comprises a removing agent which can
decrease adhesion force of the image to the image support when
15 heated.

2. The image removing method according to Claim 1, wherein
the image further comprises a second thermoplastic resin.

20 3. The image removing method according to Claim 2, wherein
the second thermoplastic resin in the image is the same as the
thermoplastic resin in the outermost layer.

25 4. The image removing method according to Claim 1, wherein
the image and the outermost layer further comprise a same
material.

5. The image removing method according to Claim 1, wherein
the outermost layer is fixed on the substrate upon application
of heat thereto.

5 6. The image removing method according to Claim 1, wherein
the image further comprises a material having a lipophilic group
therein.

7. The image removing method according to Claim 1, wherein
10 the image further comprises a particulate material having a
hydrophilic group, wherein the removing agent comprises a
hydrophilic group, and wherein the hydrophilic groups of the
particulate material and the removing agent have an ionic
bonding.

15 8. The image removing method according to Claim 1, wherein
the image further comprises a particulate material having a
hydrophilic group, wherein the removing agent comprises a
hydrophilic group, and wherein the hydrophilic groups of the
20 particulate material and the removing agent have a hydrogen
bonding.

9. The image removing method according to Claim 1, wherein
a temperature at which the image is heated to be removed is higher
25 than a fixing temperature at which the image is fixed on the
image support.

10. An image removing device comprising:

an image removing member which comprises a substrate and an outermost layer located overlying the substrate and comprising a thermoplastic resin;

5 a heat feed member configured to heat the image removing member while rotating the image removing member; and a pressure member configured to press the image removing member toward the heat feed member,

wherein the outermost layer of the image removing member 10 contacts an image fixed on an image support without applying a liquid to the image, while heating the image, and separates from the image support to remove the image from the image support, and

wherein the image comprises an image removing agent which 15 can decrease adhesion force of the image to the image support when heated.

11. The image removing device according to Claim 10,

further comprising a device configured to renew the image 20 removing member.

12. An image forming apparatus comprising:

an image bearing member;

a charger configured to charge the image bearing member;

25 an image irradiator configured to irradiate the image bearing member with imagewise light to form an electrostatic latent image on the image bearing member;

an image developer configured to develop the electrostatic latent image with a developer including a toner to form a toner image on the image bearing member;

5 an image transfer device configured to transfer the toner image onto an image support; and

a fixer configured to fix the toner image on the image support by heating the toner image at a fixing temperature, wherein the toner comprises a removing agent,

10 wherein the removing agent in the toner image can reduce an adhesive force of the toner image to the image support when the image is heated at a temperature higher than the fixing temperature.

13. The image forming apparatus according to Claim 12,
15 wherein the toner comprises a thermoplastic resin.

14. The image forming apparatus according to Claim 12, wherein the toner comprises the removing agent as an internal additive.

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15. The image forming apparatus according to Claim 12, wherein the toner comprises the removing agent as an external additive.

25 16. The image forming apparatus according to Claim 12, wherein the toner comprises a particulate material, to which the removing agent is added, as an internal additive.

17. The image forming apparatus according to Claim 12, wherein the toner comprises a particulate material, to which the removing agent is added, as an external additive.

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18. The image forming apparatus according to Claim 12, wherein the toner further comprises a particulate material as an internal additive, and wherein the particulate material includes the removing agent therein to form a clathrate.

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19. The image forming apparatus according to Claim 12, wherein the toner further comprises a particulate material as an external additive, and wherein the particulate material includes the removing agent therein to form a clathrate.

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20. The image forming apparatus according to Claim 12, further comprising the image removing device according to Claim 10.

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21. The image forming apparatus according to Claim 20, wherein the image removing device further comprises a device configured to form the outermost layer on the substrate.

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22. The image forming apparatus according to Claim 20, wherein the image removing device further comprises a device configured to renew the outermost layer on the substrate.

23. A toner image fixed on an image support at a fixing temperature, comprising:

a binder resin;

a colorant; and

5 a removing agent configured to decrease adhesive force of the toner image to the image support when the toner image is heated at a temperature higher than the fixing temperature.

24. An image forming and removing method, comprising:

10 forming a toner image on an image support, wherein the toner image comprises a binder resin, a colorant and a removing agent;

heating the toner image at a fixing temperature to fix the toner image on the image support; and

15 then removing the toner image from the image support by heating the toner image at a temperature higher than the fixing temperature.

25. A toner comprising:

20 a binder resin including a thermoplastic resin;

a colorant; and

a removing agent having both a hydrophilic group and a lipophilic group therein.

25 26. The toner according to Claim 25, wherein the hydrophilic group is selected from the group consisting of carboxylic acid groups, hydroxycarboxylic acid groups,

sulfonic acid groups, phosphonic acid groups, phosphinic acid groups, hydroxyl groups, and quaternary ammonium groups and the lipophilic group is selected from the group consisting of hydrocarbon groups, aromatic alkyl groups, partially-
5 fluorinated alkyl groups, and perfectly-fluorinated alkyl groups.

27. The toner according to Claim 25, further comprising a particulate material, wherein the removing agent is added to
10 the particulate material.

28. The toner according to Claim 25, further comprising a particulate material, wherein the particulate material and the removing agent form a clathrate in which the particulate
15 material includes the removing agent therein.